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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Minami MATSUI et al.

Application No. : 10/586,052  
(U.S. National Phase of PCT/JP2005/000283)

I. A. Filed : January 13, 2005

For : IRES FUNCTIONING IN PLANT

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
U.S. Patent and Trademark Office  
Customer Service Window, Amendment  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir:

Pursuant to 37 C.F.R. § 1.56 and 37 C.F.R. §§ 1.97-1.98, Applicants hereby direct the Examiner's attention to the following documents cited in the International Search Report and Written Opinion for International Application PCT/JP2005/000283 of which the above-referenced application is the National Stage. Copies of the Written Opinion (in Japanese) and the International Search Report (in English) were filed when entering the National Stage. A copy of the Written Opinion in English is enclosed herewith.

R.Z. AKBERGENOV et al., ARC-1, a sequence element complementary to an internal 18S rRNA segment, enhances translation efficiency in plants when present in the leader or intercistronic region of mRNAs, Nucleic Acids Res., Vol. 32, No. 1, January 12, 2004, pp. 239-247;

WO 02/101006 A2, published December 19, 2002, and its family member U.S. Application Publication No. 2003/0084482 A1 (HALL et al.), published May 1, 2003;

WO 02/083867 A2, published October 24, 2002, and its family member U.S. Application Publication No. 2004/0014216 A1 (GLEBA et al.), published January 22, 2004;

WO 03/012035, published February 13, 2003; and its family member U.S. Application Publication No. 2003/0084484 A1 (BASCOMB et al.), published May 1, 2003;

JP 2003/070477 A, published March 11, 2003, accompanied by an English language abstract thereof;

Y.Y. YAMAMOTO et al., Gene trapping of the Arabidopsis genome with a firefly luciferase reporter, Plant J., Vol. 35, 2003, pp. 273-283;

WO 02/29068 A2, published November 4, 2002; and its family member U.S. Application Publication No. 2004/0055037 A1 (GLEBA et al.), published March 18, 2004;

WO 02/068664 A1, published September 6, 2002;

P.A. IVANOV et al., A Tobamovirus genome that contains an internal ribosome entry site functional in vitro, Virology, Vol. 232, 1997, pp. 32-43;

P. URWIN et al., Functional characterization of the EMCV IRES in plants, Plant J., Vol. 24, No. 5, 2000, pp. 583-589;

WO 01/0059138 A2, published August 16, 2001; and its family member U.S. Application Publication No. 2003/0051261 A1 (VANDERHAEGHEN et al.), published March 13, 2003;

W. ZHOU et al., Transcript leader regions of two *Saccharomyces cerevisiae* mRNAs contain internal ribosome entry sites that function in living cells, *Proc. Natl. Acad. Sci.*, Vol. 98, No. 4, 2001, pp. 1531-1536;

W. ZHOU et al., Isolation and identification of short nucleotide sequences that effect translation initiation in *Saccharomyces cerevisiae*, *Proc. Natl. Acad. Sci.*, Vol. 100, No. 8, 2003, pp. 4457-4462;

A.H. JHEON et al., Characterization of the 5'-flanking region of rat AJ18 gene, *Gene*, Vol. 310, 2003, pp. 203-213.

Applicants further direct the Examiner's attention to the following documents:

S.A. CHAPPELL et al., A 9-nt segment of a cellular mRNA can function as an internal ribosome entry sties (IRES) and when present in linked multiple copies greatly enhances IRES activity, *Proc. Natl. Acad. Sci.*, Vol. 97, No. 4, 2000, pp. 1536-1541; Applicants note that this document is cited and discussed in the present application, beginning at page 2, lines 3-6;

M. KIMURA et al., Arabidopsis transcriptional regulation by light stress via hydrogen peroxide-dependent and –independent pathways, *Genes Cells*, Vol. 6,

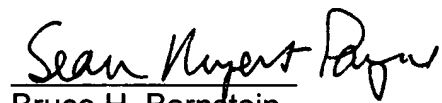
2001, pp. 607-617; Applicants note that this document is cited and discussed in the present application, beginning at page 18, lines 12-14.

Copies of the above-listed documents (with the exception of the U.S. patent applications) are enclosed together with a completed copy of the PTO-1449 Form listing these documents. Accordingly, the Examiner is requested to consider these documents and to indicate such consideration by returning a signed and initialed copy of the PTO-1449 Form with the next official communication.

Applicants note that an Office Action on the merits has not yet issued in the instant application, and thus, no fee is necessary to ensure consideration of this statement. However, if an Office Action has issued and is crossing in the mail with this statement, the Patent and Trademark Office is hereby authorized to charge Deposit Account No. 19-0089 any fee necessary to ensure consideration of the submitted materials.

If there should be any questions, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,  
MATSUI et al.

  
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FORM PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
P30310Application No.  
10/586,052INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

(Use several sheets if necessary)

Applicant  
Minami MATSUI et al.Filing Date  
January 13, 2005Group  
Unknown

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	2003	0 0 8 4 4 8 4	05/01/03	BASCOMB et al.			
	2004	0 0 5 5 0 3 7	03/18/04	GLEBA et al.			
	2003	0 0 5 1 2 6 1	03/13/03	VANDERHAEGHE N et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	NO
	02	/ 1 0 1 0 0 6	12/19/02	W.I.P.O				
	02	/ 0 8 3 8 6 7	10/24/02	W.I.P.O				
	03	/ 0 1 2 0 3 5	02/13/03	W.I.P.O				
	2003	/ 0 7 0 4 7 7	03/11/03	JAPAN				
	02	/ 2 9 0 6 8	11/04/02	W.I.P.O				
	02	/ 0 6 8 6 6 4	09/06/02	W.I.P.O				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	1	R.Z. AKBERGENOV et al., ARC-1, a sequence element complementary to an internal 18S rRNA segment, enhances translation efficiency in plants when present in the leader or intercistronic region of mRNAs, Nucleic Acids Res., Vol. 32, No. 1, January 12, 2004, pp. 239-247.
	2	Y.Y. YAMAMOTO et al., Gene trapping of the Arabidopsis genome with a firefly luciferase reporter, Plant J., Vol. 35, 2003, pp. 273-283.
	3	P.A. IVANOV et al., A Tobamovirus genome that contains an internal ribosome entry site functional in vitro, Virology, Vol. 232, 1997, pp. 32-43.
	4	P. Urwin et al., Functional characterization of the EMCV IRES in plants, Plant J., Vol. 24, No. 5, 2000, pp. 583-589.
	5	W. ZHOU et al., Transcript leader regions of two Saccharomyces cerevisiae mRNAs contain internal ribosome entry sites that function in living cells, Proc. Natl. Acad. Sci., Vol. 98, No. 4, 2001, pp. 1531-1536.
	6	W. ZHOU et al., Isolation and identification of short nucleotide sequences that effect translation initiation in Saccharomyces cerevisiae, Proc. Natl. Acad. Sci., Vol. 100, No. 8, 2003, pp. 4457-4462.
	7	A.H. JHEON et al., Characterization of the 5'-flanking region of rat AJ18 gene, Gene, Vol. 310, 2003, pp. 203-213.
	8	S.A. CHAPPELL et al., A 9-nt segment of a cellular mRNA can function as an internal ribosome entry sties (IRES) and when present in linked multiple copies greatly enhances IRES activity, Proc. Natl. Acad. Sci., Vol. 97, No. 4, 2000, pp. 1536-1541.
	9	M. KIMURA et al., Arabidopsis transcriptional regulation by light stress via hydrogen peroxide-dependent and -independent pathways, Genes Cells, Vol. 6, 2001, pp. 607-617.
	10	English language Abstract of JP 2003-070477.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Application No.  
10/586,052

Group  
Unknown